#### DOCUMENT RESUME

ED 313 374 SP 031 784

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TITLE Assessment, Accreditation, and Licensure, and Their

Effects upon Teaching and Learning.

INSTITUTION Arizona Univ., Tucson. Center for Research on

Undergraduate Education.

PUB DATE 89

NOTE 10p.; Paper prepared for presentation at the Annual

Meeting of the American Evaluation Association (San

Francisco, CA, 1989).

PUB TYPE Speeches/Conference Papers (150) -- Reports -

Descriptive (141)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS \*Academic Standards; \*Accreditation (Institutions);

Architectural Education; \*Certification; \*Educational Assessment; Engineering Education; Higher Education; Nursing Education; \*Professional Education; \*Program

Evaluation; Teacher Education

#### ABSTRACT

This paper focuses on the special considerations affecting professional schools seeking to assess the nature, quality and effects of their undergraduate programs. Advocating a comprehensive effort as the most promising means by which assessment can positively influence teaching and learning, the discussion addresses the unique characteristics of assessment in professional schools, giving special attention to professional program accreditation and licensure of professional school graduates. Examples are cited from nursing, architecture, engineering, and education. An overview is presented of assessment in professional fields and how these assessment efforts tie to the professional schools' accreditation process and licensing procedures. A discussion is offered on how the assessment process in professional schools can be facilitated, how the base provided by licensure and accreditation processes can be used, and how faculties can use assessment to improve teaching and learning. (JD)

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# ASSESSMENT, ACCREDITATION, AND LICENSURE, AND THEIR EFFECTS UPON TEACHING AND LEARNING

Prepared for Presentation at the 1989 Annual Meetings of the American Evaluation Association San Francisco

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### **Abstract**

This paper focuses on the special considerations affecting by professional schools seeking to assess the nature, quality, and effects of their undergraduate programs. Advocating a comprehensive effort as the most promising means by which assessment can positively influence teaching and learning, the discussion addresses the unique characteristics of assessment in professional schools, giving special attention to professional program accreditation and licensure of professional school graduates. Examples are cited from nursing, architecture, engineering, and education.

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In university-level colleges of arts and sciences as well as in professional schools, responses to a new set of concerns about educational quality have varied. In most instances these concerns have been discussed as they apply to arts and sciences fields. Even when efforts to assess academic programs deal with students' specialized learning, professional education may be treated as "just another" major. Yet as college and university enrollment trends continue to increase in professional fields, this dismissal is increasingly unwarranted. Worse, some nationally circulated reports have treated professional education disapprovingly, indeed disparagingly. Today's discussion seeks to reach beyond this superficial view of professional education by focusing upon assessment's meaning for professional schools and their faculties.

# Unique Qualities of Assessment in Professional Fields

For professional schools, assessment brings both opportunities and challenges. Professional schools serve multiple constituencies -- each constituency having its own perception of undergraduate educational "quality". The local, state and national communities of practitioners, and the national accrediting and licensure agencies, are but two constituencies. Consumers and employers are two more, each with yet another set of expectations for quality. Even within itself, the faculty must reconcile competing scholarly demands -- for professional practice, for research and creative productivity, and for service to the practicing community, as well as for undergraduate and graduate teaching.

"Working" on assessment is said to be more promising in professional schools, because the faculties are accustomed to the rigors of periodic accreditation review. And beyond accreditation, professional schools have a number of advantages in designing assessment efforts. Professional schools are advantaged in having a more tangible audience -- the practicing professional community beyond the school's door. While the academic community and practicing community's relationships can be checkered and varied, in this instance the practicing community can serve the professional school well.

The practice focus of professional education serves assessment well not only for evaluating the strength of the professional program but also for assessing general education. General education goals such as academic skills, breadth of knowledge, student development and intellectual habits of mind are more likely to be manifest in the capstone experiences of professional curricula than in other fields of less concrete focus.

Further, in some fields such as engineering, nursing, and architecture, the early postgraduate years can provide useful information for examining the long range influences of the undergraduate educational program. Research on graduates is of course easier when they move from the school into a prescribed internship where -- at least in theory -- rigorous monitoring of the graduate's skills and knowledge can serve assessment.

Certification and licensure for practice by our professional schools' graduates could also provide information for assessment. The problem for many professions is that item-by-item or even topic-by-topic information about (even cohorts of) graduates' performance may not be available to the school from the licensure examining board. We will return to this issue shortly.



# An Overview of Assessment in Professional Fields

As a way of illustrating how assessment can be applied in professional education, we examined six undergraduate professional fields: architecture, business, education, engineering, journalism, and nursing. We used a comprehensive assessment approach (eg. Conrad et al., 1987; Alexander & Stark, 1986) to consider how these professional fields might approach assessment at a typical university. We were interested in information ranging from admissions data to outcome measures, licensure and/or certification requirements, accreditation requirements, and studies about students after graduation.

For pre-admission assessment professional schools typically employ university-wide admission requirements together with special requirements that must be satisfied prior to the start of professional course work. These pre-admission requirements may require general education course work and skills or general education plus pre-professional course work. "Assessment" may consist solely of recording these admission criteria, or may include tracking students from admission into their professional studies.

Professional study itself is said to be assessed in a variety of ways. The most obvious of these are the strategies which assess the professional knowledge, skills, and attitudes within the major. Professional programs are more likely to require a "capstone" or synthesis experience at the senior level than are liberal arts majors; these courses require senior projects, and/or demonstration of professional competencies in an internship or preceptorship practicum experience. These "capstone" courses are an ideal mechanism not only for integrating students' learning but also for assessing the summative effect of the professional program.

Some fields also require standardized tests during the undergraduate program to assess professional knowledge. For example in nursing, the NLN examinations for several specialty clinical areas are usually administered following the completion of corresponding clinical courses, and in some states, education students are required to take an examination prior to student teaching. Assessment of general education outcomes in the professional schools is often much less direct, and may, further, be concentrated in basic skill areas rather than tapping complex thinking or knowledge in the areas commonly known as "iberal studies." At some institutions, standardized tests such as the ACT Comp or Academic Profile are used to examine student knowledge in liberal arts study areas.

# <u>Accreditation</u>

And how do these myriad assessment efforts tie to the professional schools' accreditation process? Is accreditation correctly regarded as the professional school's answer to the pressure for undergraduate program assessment?

The purpose of specialized accreditation is to establish standards, and (much like assessment) to evaluate and improve education quality. In our review of accreditation guidelines for the six professional fields, we found both criteria for certain curricular emphases including attention to liberal learning, and, in a few instances, criteria requiring assessment of student outcomes. "The curriculum emphasizes independent judgment,"



(National League for Nursing). "Competency in written communication in the English language is essential for the engineering graduate." "Oral communication skills in the English language must also be demonstrated within the curriculum by each engineering student," (Accreditation Board for Engineering and Technology). "A comprehensive system, which includes more than one measure, is used to assess the personal characteristics, communications, and basic skills proficiency of candidates preparing to teach," (National Council for Accreditation of Teacher Education).

On the surface these curricular requirements and specified outcomes would seem to point toward rigorous assessment of professional students' professional and general competencies. "The basic assumption is that specialized accreditation serves to assure educational quality" (Young 1983, 198). However, both our own findings and those of others suggest otherwise. Hagerty and Stark (1989) recently compared ten fields' accreditation standards (criteria), explored relationships between explicit outcomes in accrediting standards and faculty perceptions of accrediting rigor, and explored other correlates of explicitness in accreditation criteria. They found that few professional accrediting agencies place assessment of explicit outcomes high on the list of criteria for accreditation.

A limiting factor of the Hagerty and Stark work is that their analysis dealt with accreditation standards, rather than with their implementation. Our own research on accreditation also points to the disparity between accreditation standards and their implementation. We have found that explicitness of curricular specifications, specificity of student outcomes, and rigor of accrediting agencies' intentions bears little relationship to actual accreditation practices. For example, while the nursing standards recommend rather broadly stated curricular focus areas rather than explicit objectives, in practice the institutional self study and the visiting accreditation team meticulously trace these areas from curriculum plans to course syllabi to student products and documented skills. In contrast, while the architecture accreditation guidelines specify minutely detailed objectives for student abilities and knowledge, the self study need not address them individually and the visiting team's review of student products may not be linked to the guidelines' specified competencies.

Our research suggests several conclusions about the role of accreditation in assessment. First, although accreditation has been a fact of postsecondary professional education for decades, and accreditation effects have historically intended to improve educational programs, the formal processes currently in place are lacking. The varied ways traditional accreditation criteria are implemented in various professional fields reveal that reliance on accreditation to "solve the assessment problem" in professional schools is a hollow wish. Indeed, accreditation as grandly envisioned seems to be much more variable in reality than the accrediting criteria would imply.

However, at least three optimistic conclusions about assessment can be drawn. 1) Self-study accreditation reports include data that <u>could</u> contribute to the larger campus-wide assessment effort; 2) useful ideas about assessment <u>can be found</u> in accreditation criteria; and 3) a campus-wide assessment effort <u>can be coordinated</u> with individual professional schools' accreditation self-studies. These optimistic conclusions are not ours alone but echo Lincoln's (1988) observations on the interrelationships of assessment and accreditation.



### Licensure

Like accreditation, professional certification/licensure presents attractive possibilities for broadening the assessment data base. The professional fields vary substantially in licensure requirements and in certification testing and scoring procedures.

In architecture, professional degree graduates serve a three year supervised internship before being eligible to sit for the licensing examination, a test that is written, standardized and scored nationally but administered by each state's licensing board, which sets the passing score for the state. Because at the test the candidates report the degree, school, and year of their professional training, a school can obtain information on its graduates' subscore and total score performance from the national examination. However, because only the state board matches candidates' names with examination identification numbers, the school cannot identify individuals and must be satisfied by group data.

The situation in architecture illustrates three points for use of licensing information in assessment. First, schools prepare their graduates for the broad field of architecture, with its many career tracks. Only half or slightly more of architecture graduates actually become licensed architects. The licensing examination is thus an entirely inadequate measure of the curriculum's broader intentions and the graduates' preparation for their varied involvement in architecture. Second, even if the school's goal might be architectural practice, the examination seldom accurately mirrors the faculty's expectation for good practice. Licensure examinations tend to be weighted toward public safety -- for example will the building stand up unaided and keep out the elements -- and to treat only lightly less urgent matters like felicitous design. And third, architectural graduates do not all follow the traditional chronology from school through three internship years to the licensing examination. At any one sitting the examination could be taken by candidates from three to 15 or 25 years away from graduation -- with the obvious problems in linking graduates' performance to curricular reform.

As with architecture, in engineering the relevance of licensure for undergraduate program assessment is mixed at best. Unlike schools of architecture, colleges of engineering prepare students for a vast number of readily identifiable fields, only few of which require professional registration. For civil engineering, the registry examination can be a useful indicator because a large number of their graduates do practice independently or as consultants and therefore must be registered. On the other hand, for chemical or computer engineering graduates who work for Dow or IBM, the registry examination is irrelevant.

The situation for engineering illustrates several additional interesting points about licensure and assessment. With a field like engineering, in contrast to teaching, journalism, or architecture, the distinctions among fields are so great that for purposes of program assessment each must be considered separately; it is not meaningful to consider assessment in "engineering" itself. There is, however, one exception to this rule. Of the engineering registry examination's two parts -- the Fundamentals portion (formerly "Engineer in Training") and the Professional examination, the first can be useful for examining an initial two year curriculum common to all students before the junio. senior years of specialization.



As with architecture and engineering, education colleges face major problems in using certification examinations of circumscribed content to assess programs of broad scope and intent. The National Teachers Examination pre-professional skills portion is often used to screen for basic skills but can hardly be used to assess effects of a program usually concentrated in the junior and senior years. The general portion of the examination is undergoing major revision at present, an effort of great complexity because of the issues of teacher knowledge/skill and subject matter specialization now under intense scrutiny. In the case of education the issues are many: state versus national jurisdiction, substance to be considered "core" and "specialized," and the difficulty of appraising thinking and planning as well as classroom activity. In all, education schools may need to wait many years before certification examinations can be counted on to contribute to program assessment.

These three examples illustrate that licensure, certification, or registry -- so often cited as useful program assessment devices -- may promise more than they can produce. If assessment is undertaken solely to produce scores, scores can be obtained. But if the purpose is program refinement -- perhaps a conscious effort to improve teaching and learning -- the picture is more clouded. Lack of match with curriculum, with career tracks, and/or with practice requirements will limit examination data usefulness in program diagnosis. Inability to tie specific scores to specific students (their preparation at entrance, their academic programs, and their performance) precludes careful analysis of program effectiveness. The promise unfortunately exceeds the potential.

# Recommendations for Assessment to Foster Teaching and Learning

How, then, can we facilitate the assessment process in professional schools? Can we use the base provided by licensure and accreditation processes? How can faculties use assessment to improve teaching and learning?

As a start, how should assessment be conducted in professional schools? It is my position that a comprehensive model is essential for assessing the quality and outcomes of professional education. It is not enough to gather separate, uncoordinated, helter-skelter data on students, courses, outcomes, facilities, and the like. Moreover, it is not enough to measure professional competence in traditional narrow ways. I believe assessment in professional fields must rest in two important requirements. First, a comprehensive assessment envisions an undergraduate education for both general and specialized knowledge -- for general education as well as professional competence -- and it should concern student development beyond the academic realm. Second, it should include the essential elements elaborated previously: it should make use of existing assessment mechanisms, including accreditation, be systematic and comprehensive, be intended to improve teaching and learning, and focus on the institutional environment's effects on learning and development. It is, after all, this latter purpose -- improving teaching and learning through fostering the right institutional environment -- that should motivate this costly and often vexing effort. No positive influences upon students can be realized unless institutions assess their efforts with this intent at the fore.

From our reviews of the professional education literature and accreditation requirements and from our research on professional schools, we have concluded that this ideal is far from



reality. Several specific recommendations for improving assessment in professional schools follow.

General education "breadth of knowledge" is usually missing from a professional school's assessment program. One common remedy is a standardized test of general studies knowledge; the vast assessment literature describes several measures of general education that address areas of cognitive learning. The drawbacks of the fine-sounding standardized tests is that in professional fields, particularly at the senior level, students utilize their general education knowledge as it applies to their particular professional area of study. Critical thinking is always about something and students practice their critical thinking skills and all other general studies knowledge as well, in their own particular areas of study. These areas would naturally vary from one professional field to another. To test areas of learning with the same mechanisms in all schools — even as they relate to general learning goals, cognitive or otherwise — would be not only useless but foolish. My first recommendation then is to avoid the common standardized tests of general studies and to focus upon general education as it is manifest in professional competence. This recommendation implies that faculty-made tests, or at least program-specific tests, will focus on general studies "breadth of knowledge" as evidenced in the particular professional field.

A second recommendation also concerns general education in professional education assessment. A report from the Professional Preparation Network (Stark and Lowther 1987), recommends intensive collaboration between professional and liberal arts faculty. The report suggests that faculty view education more broadly, articulating general abilities and characteristics common to most professional roles, and defining the educated professional graduate. The real benefit of such a merger of ideas could be to define the educated professional graduate in terms of the general education components common to all students, rather than solely by the characteristics common to specific professional roles.

A third recommendation lies in further investigation of professional schools' educational efforts in the ways suggested by comprehensive assessment models. The ideal would be to mount studies to link entry characteristics with school performance, and to link instructional programs more directly to professional competencies. Only through this linkage can the professional school take steps to improve students' education. These efforts are costly and time-consuming, however, and require long-range commitments from entire faculties and administrators.

A fourth approach to admittedly incomplete professional schools' assessment programs would be research on the personal, general, and professional competencies of <u>graduates</u>. The purposes would be many -- for example obtaining graduates' retrospective judgments of their preparation, or monitoring graduates' employment success. More comprehensive purposes might also be pursued -- for example examining the effects of liberal studies on the graduates' postgraduate lives. Clearly information from licensure examinations cannot meet a faculty's need for thorough information about these broader matters, although of course wherever relevant licensing examination data are available, the faculty should seek the information and use it.

A fifth recommendation is <u>altering current accreditation practices</u> to make them more useful as analytic tools for strengthening professional programs. Given the glacial speed at which



national accrediting bodies change accrediting standards, it is likely that these changes will need to be made at individual professional schools. Faculty groups embarking on time-consuming and costly self-studies should be selfish in insisting on accreditation procedures that will serve their most important needs.

A sixth recommendation is that schools explore the <u>availability of licensing examination</u> information and its pertinence to specific portions of the curriculum. While no one -- least of all the agencies administering the licensing examination -- expects a single examination to reflect the broad scope of a professional curriculum, the examination may be useful in answering more limited questions of interest for specific groups of students.

My final recommendation is that professional schools take the <u>higher road</u>, the more comprehensive, more difficult but potentially more rewarding approach to assessment. Data collected on students and on their education should be combined with diverse information on general and professional studies, and linked to evidence about the students' professional competencies, their personal development, and their liberal education. Accreditation self-studies should employ comprehensive rather than scattered data collection methods, and be coordinated with -- rather than separated from -- the ongoing evaluation of students, faculty, and the professional program. In the end, only a comprehensive approach to assessment can bring about strengthened professional programs.



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### Note

This paper is the fourth in a series by this author addressing the particular concerns of professional schools undertaking assessment of the quality and effects of their undergraduate professional programs. The preceding reports are:

"The Unique Opportunities and Vexing Challenges of Undergraduate Program Assessment in Professional Fields" with L.M. Evans. Presentation at the 1989 annual meetings of the American Educational Research Association. ERIC #: ED 305 847.

"Issues and Methodological Concerns for Undergraduate Program Assessment in Large Research Universities," symposium presentation at the 1988 annual meetings of the Association for the Study of Higher Education.

"Student Assessment in Architecture Schools." Presented as part of a symposium on assessment of professional schools' educational quality and outcomes; 1988 annual meetings of the American Educational Research Association. ERIC #: ED 297 671.

